

CLAIMS

wherein a part of a rectangular surface of at least one of said four rectangular prisms protrudes from the rectangular surfaces of other rectangular prisms, and

2. A dichroic prism composed of four rectangular prisms with their rectangular surfaces bonded together,

wherein a part of a rectangular surface of a first rectangular prism pair composed of two adjoining rectangular prisms of said four rectangular prisms protrudes from a rectangular surface of a second rectangular prism pair in a longitudinal direction, and

wherein a dichroic film is formed on a part of the rectangular surface of said first rectangular prism pair other than said protruding part.

3. A dichroic prism according to Claim 2, wherein said two rectangular prisms in said first rectangular prism pair are fixed in a state shifted from each other in the longitudinal direction so that they form a step.

4. A dichroic prism according to any of claims 1 to 3, wherein the rectangular surface of said protruding part is provided with a light diffusing layer for diffusing light.

5. A dichroic prism according to claim 4, wherein said light diffusing layer is an adhesive layer.

6. A dichroic prism according to claim 5, wherein said light diffusing layer is a ground glass layer.

7. A prism unit, comprising:

a dichroic prism claimed in any of claims 1 to 6; and
a prism stand for mounting said dichroic prism thereon,
wherein said prism stand has a step that matches a step
of said dichroic prism.

8. A projection display apparatus, comprising:

an illumination optical system for emitting
illumination light;

colored light separation means for separating the
illumination light into lights of three colors;

three light modulation means for modulating the three
colored lights based on a given image signal;

a dichroic prism claimed in any of claims 1 to 6; and
a projection optical system for projecting lights
synthesized by said dichroic prism.

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